Summary of Basin Delineation Meeting
Norman, OK
Aug 7-10
Items in blue were recorded after 8/10/01

Tuesday August 7 (Ami Arthur & Michael Mercer)
NSSL Basin Delineation Process
Issues:

1. Filter/Aggregation script (to 2mi^2)

   Once the aggregation script has been run (auto aggregation) and then manual aggregation has taken place (on top of that), the script cannot be rerun because during manual aggregation of 2 or more basins, at least one Pfafstetter ID will drop out (deleted). The (auto) aggregation script will not re-aggregate properly because the Pfafstetter ID system has been altered.

2. Bin to Basin

   For situations where there are overlapping radars the basin may not be the same. For example, radar A and radar B share basin X. For radar A, basin X may need to be aggregated (because it does not contain a center point for a range bin), but for radar B basin X may contain the center point (not requiring aggregation). Thus basin X (the same area) is now two different basins.

3. If a particular reach (between junctions) is less than 2 mi^2 and/or it does not have a bin, what is the best way to aggregate up (to meet the 2 mi^2 requirement)? Three possible methods include: 1) to combine the 2 tributary watershed (boundary to river reach) with the river reach in question; 2) to combine a *portion* of the 2 tributary watersheds (boundary to river reach) with the river reach in question, and 3) is to aggregate the reach with the next upstream reach. NSSL will adopt method 3.

4. EROS sending back basin set with holes or no data
5. HUC boundary not where they should be
6. Coastal scripts - still waiting
7. Having to manually enter a "no data" grid point for closed basins.
8. Will the .shp from NSSL display in D2D, or do basin boundaries need to be thinned or smoothed? (A test in SLC took the D2D 20 min to load basins due to "block" like structure.)

NOTES:
Those who have Spatial Analyst and want to perform basin delineation should have version 1.1.
Have Rich Fulton to send Paul the range bin program. (DONE)
Michael to check to see if misbin extension needs Spatial Analyst to run.

Wednesday August 8 (Ami Arthur, Paul Jendrowski, & Michael Mercer)
Coordination of NSSL/Jendrowski scripts.

Issue: Do we have basin data sets with basins that have been aggregated to meet the 2 mi^2 requirement, or just leave out these small basin as "no data" areas or holes in the basin shapefile where no calculations would take place.

> *The automatic basin merging to eliminate basins without bins and very small basins is very messy and destroys the Pfafstetter network.*
> *We would like to simplify the process and just flag basins on whether they should be used or not in the algorithm. This would require a new Boolean field in the shapefile to indicate whether the basin should be used or not. This would maintain the Pfafstetter network and be much easier for the user to customize their basins without requiring them to ensure every polygon is greater than a specified size or has a bin. The shapefile used as a map background would then still represent the actual surface water flow with all the basins in them and the user would be trained that small basins may not actually have an ABR computation due to the variable radar resolution with range. We pretty much all agreed that this is the way the application should work and would like to add this new field as a requirement for the FFMP software. Of course, we understand this probably can not be done for the initial release. Therefore, the customization process would then have the user delete the basins not used from the shapefile before the localization process in the initial release.*

> NOTES: May need to determine if NSSL needs to send MDL/PRC BOX's shapefile with holes. May also need to determine if MDL needs to add a flag to set apart basins to be used for calculations. Due to AWIPS 5.1.2 release deadlines, NWSH/HSD and MDL are not able to test these items.

Scripts to be included in Customization course: (all included in one extension)
merge basins (manual aggregation of 2 basins)
delete basin
area
bin to basin
Other items to be covered in course.
clipping lakes
load projector button (already included in ESRI samples)

Action: NSSL to send Paul Jendrowski PBZ or BOX shapefiles

Other issues concerning MDL:
Thinning or smoothing of shapefile lines.
> Need to investigate PBZ's at MDL to see if this is a D2D issue (a lot of grid points vs a smooth line). NOTE: (8/17) At this point MDL does not see this as a problem

What is the character limit in the "name" field in FFMP 2.0? Apparently there is no FFMP 2.0 character limit for the "name" field. The limit would therefore be in the NSSL attribute field.

Localization Issues
      If the number of basins change, does it affect anything?
      If the shapefile is customized, do you need to re-localize?
      The answer to the above two items is yes. FFMP re-localization would be required. This would require the SCAN option to be rerun (mainScript.sch -SCAN).
      What fields are required in the shapefile for localization? (If we get a shapefile from an outside source what fields/formats are necessary?) There are required fields with required names. MDL will provided this information at a later date.

Thursday & Friday morning, August 9/10 (Ami Arthur, Paul Jendrowski, Matt Kelsch & Michael Mercer)
Discuss course content and COMET.

What platform is ArcView installed at COMET?
When will COMET get 5.1.1 and 5.1.2?
What version of ArcView and Spatial Analyst are installed?
Tim Alberta has stated that ArcView version 3.1 and Spatial Analyst 1.0 are installed on the HP systems at COMET. He has been in contact with ESRI to get Spatial Analyst version 1.1. COMET will get AWIPS 5.1.1 (necessary for FFMP 2.0) in early FY02. No date for 5.1.2 yet.
How many students will attend each session? There will be 18 students in each class (Spayd).
Still some confusion on the role COMET has for this course (COMET vs NWSH course). Currently this is still a COMET course (Spayd).